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BEFORE THE ARIZONA CORPORATION C

2 3 4 5	COMMISSIONERS GARY PIERCE- Chairman BOB STUMP SANDRA D. KENNEDY PAUL NEWMAN BRENDA BURNS	
6 7 8 9	IN THE MATTER OF THE APPLICATION OF APPALOOSA WATER COMPANY FOR APPROVAL OF A FINANCING APPLICATION IN THE MATTER OF THE APPLICATION OF APPALOOSA WATER COMPANY FOR APPROVAL OF A RATE INCREASE	DOCKET NO. W-03443A-10-0143 DOCKET NO. W-03443A-11-0040 STAFF'S NOTICE OF FILING SURREBUTTAL TESTIMONY
11		
12		
13	Staff of the Arizona Corporation Commissi	on ("Staff") hereby files the Surrebuttal Testimony
14	of Jeffrey Michlik and Jian Liu on behalf of the Ut	ilities Division in the above docket.
15	RESPECTFULLY SUBMITTED this 17 th of	day of April 2012.
16		
17		muzkult
18	A ['] As	mberly A. Ruht ttorney, Legal Division
19	12	rizona Corporation Commission 200 West Washington Street
20	PI (6	noenix, Arizona 85007 02) 542-3402
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22	drivon	
23		a Corporation Commission OCKETED
24	Original and thirteen (13) copies	APR 17 2012
25	of the foregoing filed this 17 th day of April 2012 with:	CKETEDIAY MO = 2
26	Docket Control	
27 28	Arizona Corporation Commission 1200 West Washington Street Phoenix, Arizona 85007	

1	Copies of the foregoing mailed this 17 th day of April 2012 to:
2	
3	Joe Cordovana Post Office Box 3150 Chino Valley, Arizona 86323
4	Ms. GayLynn Thorp
5	Post Office Box 1035 Chino Valley, Arizona 86323
6	John E. Blann, Jr.
7	2925 Harrison Drive Chino Valley, Arizona 86323
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9_	House Charles
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BEFORE THE ARIZONA CORPORATION COMMISSION

GARY PIERCE	
Chairman	
BOB STUMP	
Commissioner	
SANDRA D. KENNEDY	
Commissioner	
PAUL NEWMAN	
Commissioner	
BRENDA BURNS	
Commissioner	
IN THE MATTER OF THE APPLICATION OF)	DOCKET NO. W-03443A-10-0143
APPALOOSA WATER COMPANY FOR)	
APPROVAL OF A FINANCING APPLICATION.)	
	DOCKET NO. W-03443A-11-0040
IN THE MATTER OF THE APPLICATION OF)	
APPALOOSA WATER COMPANY FOR	
APPROVAL OF A RATE INCREASE.	

SURREBUTTAL

TESTIMONY

OF

JEFFREY M. MICHLIK

PUBLIC UTILITIES ANALYST V

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

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EXECUTIVE SUMMARY APPALOOSA WATER COMPANY DOCKET NOS. W-03443A-11-0040 AND W-03443A-10-0143

The Surrebuttal Testimony of Jeffrey M. Michlik addresses the following issues:

1) Arsenic Treatment Plant; 2) Arsenic Replacement Media; 3) Purchase of Computers and Software; 4) Property Taxes; 5) Salary Expense; 6) Elimination of Arsenic Surcharge; 7) Personal Loan; 8) Advances in Aid of Construction; and 9) Financing.

Staff recommends rates that would increase operating revenue by \$25,373, or 18.01 percent, over adjusted test year revenue of \$140,888 to produce operating revenue of \$166,261 resulting in operating income of \$9,602. Staff recommends a \$25,575 original cost rate base and fair value rate base. Due to the Company's small rate base, Staff's recommended revenue requirement is based on a cash flow analysis. Staff further recommends authorizing the Company to obtain a \$160,000 Water Infrastructure Financing Authority of Arizona ("WIFA") loan to acquire and install a 50,000-gallon storage tank and two emergency generators. Staff further recommends allowing the Company to recover debt service and incremental taxes thereon via a surcharge for an amount to be determined by Staff when the Company obtains the WIFA loan and upon subsequent Commission authorization of specific surcharge rates. Staff estimates \$11,870 for the required annual surcharge revenues.

Surrebuttal Testimony of Jeffrey M. Michlik Docket Nos. W-03443A-11-0040 (Rates) and W-03443A-10-0143 (Financing) Page 1

I. INTRODUCTION

- Q. Please state your name, occupation, and business address.
- A. My name is Jeffrey M. Michlik. I am a Public Utilities Analyst V employed by the Arizona Corporation Commission ("Commission") in the Utilities Division ("Staff"). My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. Are you the same Jeffrey M. Michlik that filed Direct Testimony in this case?

A. Yes, I am.

II. SUMMARY OF SURREBUTTAL RECOMMENDATION

- Q. What are Staff's Surrebuttal revenue and rate base recommendations for Appaloosa Water Company ("Appaloosa" or "Company")?
- A. Staff recommends rates that would increase operating revenue by \$25,373, or 18.01 percent, over adjusted test year revenue of \$140,888 to produce operating revenue of \$166,261 resulting in operating income of \$9,602. Staff recommends a \$25,575 original cost rate base and fair value rate base. Due to the Company's small rate base, Staff's recommended revenue requirement is based on a cash flow analysis. Staff further recommends authorizing the Company to obtain a \$160,000 Water Infrastructure Finance Authority of Arizona ("WIFA") loan to acquire and install a 50,000-gallon storage tank and two emergency generators. Staff further recommends allowing the Company to recover debt service and incremental taxes thereon via a surcharge for an amount to be determined by Staff when the Company obtains the WIFA loan and upon subsequent Commission authorization of specific surcharge rates. Staff estimates \$11,870 for the required annual surcharge revenues.

Surrebuttal Testimony of Jeffrey M. Michlik Docket Nos. W-03443A-11-0040 (Rates) and W-03443A-10-0143 (Financing) Page 2

III. RESPONSES TO INTERVENOR AND COMPANY TESTIMONY

Arsenic Treatment Plant

Yes.

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Q. Specifically, did you review Mr. Blann's enclosure 4, page 1 of 8?

A. Yes. Mr. Blann asserts that, of the Company's claimed \$200,521 in expenditures for the Arsenic Treatment Facility ("ATF"), only \$175,375 of those cost are directly related to the ATF. The difference is comprised of \$6,996 in pre-construction cost for a new storage tank and \$18,105 in late fee charges.

Have you reviewed the direct testimony of Mr. John E. Blann, Jr. (intervenor and

residential customer of Appaloosa) filed on March 22, 2012, and the rebuttal

testimony of Joe Cordovana (president of Appaloosa), filed on March 26, 2012?

Q. Does Staff agree with Mr. Blann's assessment?

A. Yes. Due to the Company's use of loan funds for other than construction of the ATF, the Company is also out of compliance with Decision No. 71236, which states "that Appaloosa Water Company is hereby authorized to obtain a 20-year amortizing loan through the Water Infrastructure Finance Authority of Arizona for an amount not to exceed \$200,000, to finance the cost of the arsenic treatment facility as described herein" and "that financing authority granted herein is expressly contingent on Appaloosa Water Company's use of the proceeds to finance the arsenic treatment facility as described herein."

¹ Decision No. 71236 (issued Aug. 6, 2009, Docket Nos. W-03443A-08-0177 and -0313) at 19:27-20:5.

Surrebuttal Testimony of Jeffrey M. Michlik Docket Nos. W-03443A-11-0040 (Rates) and W-03443A-10-0143 (Financing) Page 3

Q. Has Staff revised its schedules based on this information?

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Purchase of Computers and Software

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Yes. Staff reduced account no. 320.1 Water Treatment Plant by \$6,996, from \$155,246 to A.

\$148,250, as reflected in Surrebuttal Schedule JMM-5. The amounts in account 320.1

Water Treatment Plant, and account 320.3 Water Treatment Equipment now total

\$175,375 (i.e., \$148,250 + \$27,125). Staff has also reduced the accumulated depreciation

associated with the pre-construction costs for the new storage tank, as reflected in

Surrebuttal Schedule JMM-6.

Arsenic Replacement Media

Has Staff provided for the recovery of Arsenic Replacement Media in rates? Q.

Yes. Staff has included annual depreciation expense of \$21,700, calculated on total media A. costs of \$27,125 (\$25,000 for the media and \$2,125 for its installation) and depreciated over fifteen months, as shown in Surrebuttal Schedule JMM-12, line 15. Since the expected useful life of fifteen months exceeds one year, these arsenic replacement media costs are appropriately capitalized instead of expensed according to the National Association of Regulatory Utility Commissioners ("NARUC") Uniform System of Accounts ("USOA").

Q. Please explain Staff's treatment of the Company's computer and software purchase.

Consistent with generally accepted accounting principles and the NARUC USOA, assets A. with expected lives exceeding one year are capitalized instead of expensed. Staff uses a five-year expected life for computers and software. Thus, Staff capitalized the computer and software costs and provided recovery of those costs through annual depreciation expense.

Surrebuttal Testimony of Jeffrey M. Michlik Docket Nos. W-03443A-11-0040 (Rates) and W-03443A-10-0143 (Financing) Page 4

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Property Taxes

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direct testimony?

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Staff's recommended increase in property tax expense reflects the increase in A. revenues that Staff recommends in this case on a going-forward basis.

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Salary Expense

Did Staff find the Company's proposed salary expense unreasonable, as suggested by Mr. Blann?

Did you explain Staff's methodology for calculating property tax expense in your

No. Salary expenses vary among utilities depending upon many variables, which include A. the operational characteristics of the utility and the degree of its reliance on outside services. A comparison of this Company's salary expense to that of other similarlysituated utilities shows that the proposed salary expense in this case does not seem unreasonable.2

Elimination of Arsenic Surcharge

- Mr. Cordovana and Mr. Blann have both discussed the over- or under-collection of Q. the WIFA arsenic surcharge. Does the over- or under-collection status of the arsenic surcharge remain relevant?
- No. The Commission did not establish a true-up feature in conjunction with the arsenic A. surcharge. A true-up is appropriate when significant unknowns pertaining to the costs and/or surcharge revenues cause the expectation of a large over- or under-recovery. The purpose of the arsenic surcharge was to provide the Company with a financial bridge from the prior rate case through this rate case by providing additional cash flows. The

² Livco Water Company, Docket No. W-0212A-11-0213, salary expense of \$67,000; Cedar Grove Water, Inc., Docket No. W-20541A-11-0199, salary expense of \$91,455; Baca Float Water Company, Inc., Docket No. WS-01678A-10-0504, salary expense of \$94,000.

surcharge performed this function effectively. Once the plant constructed with the loan is included in rate base, as it is in this case, and the Company is recovering the cost of that plant, the surcharge is no longer appropriate. Staff is not aware of any instance in which a surcharge to cover debt service on a loan was continued once the plant financed by the loan has been included in rate base. Accordingly, the arsenic surcharge should be discontinued.

Personal Loan

- Q. Does Staff have any comment on Mr. Blann's assertion that the personal loan agreement Mr. Cordovana entered into with the Company violates the Internal Revenue Code ("IRC"), Chapter 80, General Rules Paragraph 7872, because the repayment of the loan does not include interest?
- A. Yes. Staff notes that any interest income the Company earns on the loan issued to Mr. Cordovana is not a component of operating income, and it does not affect the revenue requirement. In other words, whether Mr. Cordovana is in violation of the IRC is a matter between the Internal Revenue Service and Mr. Cordovana; it is not a ratemaking issue.

Q. Please comment on Mr. Blann's allegation that Mr. Cordovana has not made the yearly \$300 payments on the personal loan between the Company and himself as required by the loan terms.

A. Staff notes that the Company's general ledger shows the loan receivable amount at \$141,187, the original loan amount, an indication that the yearly payment has not been paid. Decision No. 71236 (at page 16) required the Company to obtain board approval of the loan, substantiate the loan with a written note and establish a repayment schedule. The Appaloosa board of directors approved the loan on September 1, 2009, and the Company docketed a copy of the note on September 9, 2009. The loan provides for annual \$300

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payments beginning January 1, 2010, and each January 1 thereafter for 30 years, with the \$132,186 balance due at the end of the 30-year term. The Company should take appropriate action to collect the delinquent payments from Mr. Cordovana to preserve the Company's assets. However, Staff notes that collection of the loan repayments would not necessarily result in additional funds available for utility operations. For example, with approval of the board of directors, the Company could distribute the amount of the loan repayments as dividends to shareholders, including Mr. Cordovana, with essentially the same cash flow result as if Mr. Cordovana had not made the loan payment. The Company has not recorded any such transactions and the Company should accurately record any transactions that occur.

Q. Did Staff also note any other loans when examining the general ledger?

Yes. Staff noted that there is a \$67,200 employee advance and a \$648 loan receivable from Artesian Holdings, LLC³. Staff recommends requiring the Company to obtain Commission approval before making cash advances or loans to any parties. Issuing loans reduces the internally-generated cash available for operating expenses, capital improvements and debt service. The Company should not be collecting surcharge revenue that would not have been necessary had the Company retained loaned funds. The Company is in the water utility business, not the lending business. Thus, Mr. Blann correctly notes that, if Mr. Cordovana had not withdrawn money from the Company, those amounts would be available for capital improvements. While distributing a portion of earnings as dividends is a normal practice, it is inappropriate for the Company to issue loans and make other non-utility uses of funds when a rate base/rate of return revenue requirement does not provide sufficient cash flow to service its debt or its capital structure is heavily debt-leveraged as is the circumstance in this case.

³ Joe Cordovana is also a member/manager of Artesian Holdings, LLC.

Surrebuttal Testimony of Jeffrey M. Michlik Docket Nos. W-03443A-11-0040 (Rates) and W-03443A-10-0143 (Financing) Page 7

Advances in Aid of Construction ("AIAC")

Q. Please comment on Mr. Blann's statement that there are outstanding AIAC refunds due to customers.

A. Staff agrees with Mr. Blann that Mr. Cordovana should make the necessary AIAC refunds.

Q. What AIAC amount did Staff use?

A. Staff used the amount of \$570,327 that was approved in the prior rate case, and included in the Company's 2010 annual report and the Company's rate application.

Q. Did Staff, through a data request, ask the Company if it refunded any AIAC during the test year?

A. Yes. The Company responded that it did not understand Staff's question. However, the Company stated that no AIAC had been converted to CIAC. In a follow-up discussion with GayLynn Brightday, the Company's accountant, Staff determined that the actual AIAC balance is \$535,553, not \$570,327, and that the Company refunds approximately \$7,000 in AIAC per year.

Q. Has Staff corrected its schedules to reflect this new information?

A. Yes. Please see Staff Surrebuttal Schedule JMM-7 and JMM-15.

Financing

23 Q. Does Staff have a correction to its financing recommendations?

A. Yes. Staff's direct testimony recommended authorization to incur an 18- to 22- year amortizing loan in an amount not to exceed \$60,000 at an interest rate not to exceed that which is available from WIFA for the purpose of acquiring an emergency generator with

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clarification, Staff's recommendation is for two generators, not a single generator.

sufficient capacity to run the Company's high-yield well. Staff recommended denial of

the remainder of the Company's \$855,193 request for authorization to borrow funds. For

Q. Did Staff update its financial analysis of the proposed financing to recognize its Surrebuttal position?

Yes. Staff's financial analysis is shown in Surrebuttal Schedules JMM-15 and JMM-16. Surrebuttal Schedule JMM-16, Column [A], presents pro forma financial information reflecting Staff's audit results and recommended rates with existing loans. Surrebuttal Schedule JMM-16, Column [B], presents pro forma financial information that modifies Column [A] to reflect issuance of a \$160,000, 20-year amortizing loan at 3.675 percent per annum and \$11,870 in surcharge revenues. Surrebuttal Schedule JMM-16 also shows the debt service coverage ratio ("DSC").

DSC represents the number of times internally generated cash (i.e., earnings before interest, income tax, depreciation and amortization expenses) covers required principle and interest payments on short-term and long-term debt. A DSC greater than 1.0 means operating cash flow is sufficient to cover debt obligations.

Schedule JMM-16, Column [B] shows that a pro forma 2.30 DSC results from Staff's recommended revenue requirement, including surcharge revenue, and a fully drawn \$160,000 20-year amortizing loan at 3.675 percent annual interest. The pro forma DSC shows that the Company will have adequate cash flows to meet all obligations including the anticipated new debt.

Surrebuttal Testimony of Jeffrey M. Michlik Docket Nos. W-03443A-11-0040 (Rates) and W-03443A-10-0143 (Financing) Page 9

Surrebuttal Schedule JMM-15 presents cash flow analyses with and without the \$160,000 loan. The cash flow analysis reflecting issuance of a \$160,000 loan shows that Staff's recommended revenues would provide positive, uncommitted cash flow available for contingencies of \$17,924.

Accordingly, Staff concludes that issuance of debt financing not to exceed \$160,000 in the form of an amortizing loan of approximately 20 years for a 50,000-gallon storage tank and two emergency generators is within the Company's corporate powers, is compatible with the public interest, will not impair its ability to provide services and is consistent with sound financial practices provided the rates authorized in this proceeding provide a 1.25 or greater DSC.⁴ The remainder of the Company's request for borrowing authorization should be denied.

Q. What is Staff's revised recommendation?

A. Staff recommends authorization to incur an 18- to 22-year amortizing loan in an amount not to exceed \$160,000 at an interest rate not to exceed that which is available from WIFA for the purpose of acquiring a 50,000-gallon storage tank and two emergency generators with sufficient capacity to run the Company's two wells to meet fire-flow requirements. Staff recommends denial of the remainder of the Company's request for authorization to borrow funds.

⁴ Staff generally considers 1.25 as the minimum DSC for a WIFA loan due to debt service reserve funding requirements.

⁵ Staff originally calculated its fire-flow requirement based on a standard ADEQ fire-flow measure of 500 gallons per minute for two hours. The Chino Valley Fire District fire-flow requirement is 1000 gallons per minute for two hours with a 20 PSI residual. To accommodate the Chino Valley Fire District fire-flow requirement, Staff has changed its recommendation to include an additional 50,000 gallon storage tank to meet the fire-flow requirement.

Q. Does Staff now recommend an infrastructure surcharge to fund the WIFA loan?

A. Yes. Staff did not recommend an infrastructure surcharge to fund the emergency generators in its direct testimony; however, with the additional \$100,000 loan amount for the storage tank and in recognition of AIAC refunding and tax obligations recognized in Surrebuttal, Staff concludes that an infrastructure surcharge is needed to provide adequate cash flow for contingencies. Just as the arsenic surcharge should be eliminated in this case, any infrastructure surcharge established in this case should be eliminated in a future

rate case as the plant improvements are recognized in rate base.

Q. Does Staff recommend that the WIFA infrastructure surcharge include a component

for the debt service reserve fund?

A. No. Staff's recommended surcharge includes principal, interest on the WIFA loan and incremental income and property taxes due to the surcharge revenue. Staff's cash flow analysis shows that, with Staff's recommended surcharge, the Company would generate sufficient cash flow to meet all obligations including the WIFA debt service reserve fund. (See Surrebuttal Schedule JMM-15). Accordingly, Staff does not recommend including a provision for the debt service reserve fund in the surcharge.

Q. How does the infrastructure surcharge work?

A. The surcharge mechanism establishes the methodology for calculating the surcharge amounts to be applied to the rates established in this rate application. Once the Company has closed on the WIFA loan, it would submit an application in this Docket requesting implementation of the infrastructure surcharge. Staff would then calculate the appropriate surcharge, and prepare and file a recommended order for Commission consideration.

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surcharge?

granted.

Yes. Staff recommends the following:

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1. That the Company file as a compliance item in this Docket, within 30 days of the execution of any financing transaction authorization herein, a notice confirming that such execution has occurred and a certification by an authorized Company representative that the terms of the financing fully comply with the authorizations

Does Staff have any additional recommendations regarding the infrastructure

- 2. That the Company provide to Staff, a copy of any WIFA loan documents executed pursuant to the authorizations granted herein, within 30 days of the execution of the loan, and file a letter in Docket Control that the WIFA documents have been provided to Staff.
- 3. That upon filing of the loan closing notice and the provision of the loan documents to Staff, the Company may file in this Docket an application requesting implementation of the associated surcharge.
- 4. That within 60 days of the filing of a surcharge implementation request, Staff shall calculate the appropriate WIFA surcharge and prepare and file a recommended order for Commission consideration. The surcharge should be calculated based on the actual loan debt service (interest and principal) payments and using the current customer count at the time of the loan closing.

- 5. As a compliance item in this Docket, that the Company establish a separate interest-bearing account, and in the month following authorization of the infrastructure surcharge, deposit each month into the account an amount equal to the debt service (principal and interest) on the new WIFA loan.⁶ Monies from this account shall be used solely to repay WIFA.
- 6. That the Company file a report on January 30th each year as long as it has a WIFA loan, showing the monthly bank statements for the interest bearing account and the monthly WIFA billing statements, along with the cancelled checks or electric fund transfers from the Company showing that the monthly WIFA loan payments from the previous twelve months have been paid.
- Q. Has Staff presented an estimate of the infrastructure surcharge impact per customer based on a \$160,000, 20 year, 3.675 percent interest WIFA loan?
- A. Yes. Surrebuttal Schedule JMM-17 shows estimate of the monthly surcharge for all meter sizes. The surcharge estimate for 5/8 x 3/4-inch meter is \$2.47 per month.
- Q. Has Staff also calculated the approximate combined impact of Staff's recommended increase in base rates and the infrastructure surcharge on the average and median usage 5/8 x 3/4-inch meter customers' monthly bills?
- A. Yes. Please see Surrebuttal Schedule JMM-20.

⁶ As Staff noted in it its Direct Testimony (Michlik at 4:6-15), the Company did not follow the order in Decision No.71236 that required all surcharge revenues to be deposited into a separate interest-bearing account. The Company is hereby put on notice that Staff may pursue appropriate sanctions if the Company does not follow Commission orders.

Q. Other than as specifically modified and described in Staff's Surrebuttal, does Staff continue to advocate the recommendations made in its direct testimony related to the financing?

- A. Yes. For example, Staff recommends that the Commission authorize Appaloosa to pledge its assets in the State of Arizona pursuant to A.R.S. § 40-285 and R18-15-104 in connection with the WIFA loan.
- Q. Does your silence on any of the issues, matters or findings addressed in the testimony of any of the witnesses for the Company constitute your acceptance of their positions on such issues, matters or findings?
- A. No. Staff limited its discussion to the specific issues outlined above. Staff's lack of response to any issue in this proceeding should not be construed as agreement with the Company's position in its rebuttal testimony; rather, where there is no response Staff relies on its original Direct Testimony.
- Q. Does this conclude your Surrebuttal Testimony?
- A. Yes, it does.

SURREBUTTAL TESTIMONY OF JEFFREY M. MICHLIK

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JMM-5	ORIGINAL COST RATE BASE ADJUSTMENT # 1 - PLANT PRO-FORMA AND RECLASSIFICATION OF PLANT
JMM-6	ORIGINAL COST RATE BASE ADJUSTMENT # 2 - ACCUMULATED DEPRECIATION
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JMM-20	TYPICAL BILL ANALYSIS WITH INFRASTRUCTURE SURCHARGE

REVENUE REQUIREMENT

LINE NO.	<u>DESCRIPTION</u>	(A) OMPANY FAIR VALUE	(B) STAFF FAIR VALUE
1	Adjusted Rate Base	\$ (52,705)	\$ 25,575
2	Adjusted Operating Income (Loss)	\$ (37,979)	\$ (10,212)
3	Current Rate of Return (L2 / L1)	N/M	N/M
4	Required Rate of Return	N/M	N/M
5	Proposed/Recommended Operating Income	N/M	\$ 9,602
6	Operating Income Deficiency (L5 - L2)	N/M	\$ 19,814
7	Gross Revenue Conversion Factor	1.0000	1.2806
8	Required Revenue Increase (L7 * L6)	\$ 140,888	\$ 25,373
9	Adjusted Test Year Revenue	\$ 140,888	\$ 140,888
10	Proposed Annual Revenue (L8 + L9)	\$ 281,776	\$ 166,261
11	Required Increase in Revenue (%)	100.00%	18.01%

N/M = Not Meaningful

References:

Column (A): Company Schedule A-1

Column (B): Staff Schedules JMM-3 and JMM-8

GROSS REVENUE CONVERSION FACTOR

LINE NO.		(A)	(B)	(C)	(D)
1 2 3 4 5 6	Calculation of Gross Revenue Conversion Factor: Revenue Uncollecible Factor (Line 11) Revenues (L1 - L2) Combined Federal and State Income Tax and Property Tax Rate (Line 23) Subtotal (L3 - L4) Revenue Conversion Factor (L1 / L5)	100.0000% 0.0000% 100.0000% 21.9099% 78.0901% 1.280572			
8 9 10	Calculation of Uncollecttible Factor: Unity Combined Federal and State Tax Rate (Line 23) One Minus Combined Income Tax Rate (L7 - L8) Uncollectible Rate Uncollectible Factor (L9 * L10)	100.0000% 20.9228% 79.0772% 0.0000% 0.0000%			
13 14 15 16	Calculation of Effective Tax Rate: Operating Income Before Taxes (Arizona Taxable Income) Arizona State Income Tax Rate Federal Taxable Income (L12 - L13) Applicable Federal Income Tax Rate (Line 55) Effective Federal Income Tax Rate (L14 x L15) Combined Federal and State Income Tax Rate (L13 +L16)	100.0000% 6.9680% 93.0320% 15.0000% 13.9548%	20.9228%		
19 20 21 22	Calculation of Effective Property Tax Factor Unity Combined Federal and State Income Tax Rate (L17) One Minus Combined Income Tax Rate (L18-L19) Property Tax Factor (JMM-13, L27) Effective Property Tax Factor (L20*L21) Combined Federal and State Income Tax and Property Tax Rate (L17+L22)	100.0000% 20.9228% 79.0772% 1.2483%	0.9871%	21.9099%	
25	Required Operating Income (Schedule JMM-1, Line 5) AdjustedTest Year Operating Income (Loss) Required Increase in Operating Income (L24 - L25)	\$ 9,602 (10,212)	\$ 19,814		
28	Income Taxes on Recommended Revenue (Col. [E], L52) Income Taxes on Test Year Revenue (Col. [B], L52) Required Increase in Revenue to Provide for Income Taxes (L27 - L28)	\$ 2,541 (2,702)	5,243		
31 32 33	Recommended Revenue Requirement (Schedule JMM-1, Line 10) Uncollectible Rate (Line 10) Uncollectible Expense on Recommended Revenue (L30*L31) Adjusted Test Year Uncollectible Expense Required Increase in Revenue to Provide for Uncollectible Exp. (L32-L33)	\$ 166,261 0.0000% \$ - \$ -	-		
36 37	Property Tax with Recommended Revenue (JMM-13, Col B, L31) Property Tax on Test Year Revenue (JMM-13, Col A, L17) Increase in Property Tax Due to Increase in Revenue (L35-L36) Total Required Increase in Revenue (L26 + L29 + L34 + L37)	\$ 3,831 3,514	317 \$ 25,373		
40 41 42 43 44 45 46 47 48 49 50 51	Calculation of Income Tax: Revenue (Schedule JMM-8, Col. [C], Line 6 & Sch. JMM-1, Col. [D] Line 10) Operating Expenses Excluding Income Taxes Interest(L56) Arizona Taxable Income (L39 - L40 - L41) Arizona State Income Tax Rate Arizona Income Tax (L42 x L43) Federal Taxable Income (L42 - L44) Federal Tax on First Income Bracket (\$1 - \$50,000) @ 15% Federal Tax on Second Income Bracket (\$51,001 - \$75,000) @ 25% Federal Tax on Third Income Bracket (\$75,001 - \$100,000) @ 34% Federal Tax on Fourth Income Bracket (\$100,001 - \$335,000) @ 39% Federal Tax on Fifth Income Bracket (\$335,001 - \$10,000,000) @ 34% Total Federal Income Tax Combined Federal and State Income Tax (L44 + L51)	Test Year \$ 140,888 \$ 153,802 \$ \$ (12,914) 6,9680% \$ (900) \$ (12,014) \$ (1,802) \$ \$ \$ \$ (1,802) \$ (2,702)	\$ 25,373	Staff Recommended W \$ 166,261 \$ \$ 154,119 \$ \$ - \$ \$ 12,143 \$ 6.9680% \$ 846 \$ \$ 11,297 \$ \$ 1,695 \$ \$ - \$ \$ 1,695 \$ \$ 2,541 \$	Pro Forma //Proposed Loans 178,132 154,267 5,788 18,077 6,9680% 1,260 16,818 1,695 1,695 2,954

RATE BASE - ORIGINAL COST

LINE <u>NO.</u>		C	(A) COMPANY AS <u>FILED</u>	(B) STAFF ISTMENTS	Adj. <u>No.</u>	<u>A</u>	(C) STAFF AS .DJUSTED
1 2 3	Plant in Service Less: Accumulated Depreciation Net Plant in Service	\$	1,459,170 231,234 1,227,936	\$ 47,350 16,625 30,725	1 2	\$	1,506,520 247,859 1,258,661
	LESS:						
4 5 6	Contributions in Aid of Construction (CIAC) Less: Accumulated Amortization Net CIAC	\$	759,327 49,004 710,323	\$ - - -		\$ \$	759,327 49,004 710,323
7	Advances in Aid of Construction (AIAC)		570,318	(34,765)			535,553
8	Customer Deposits		-	-			-
9	Deferred Income Tax Credits		-	-			-
	ADD:						
9	Working Capital Allowance		-	12,791	3		12,791
10	Deferred Regulatory Assets		-	-			-
11	Original Cost Rate Base	\$	(52,705)	\$ 78,280		\$	25,575

References:

Column [A]: Company as Filed Column [B]: Schedule JMM-4

Column (C): Column (A) + Column (B)

Appaloosa Water Company Docket Nos. W-03443A-11-0040 and W-03443A-10-0143 Test Year ended December 31, 2010

SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

[E] STAFF	ADJUSTED		264	3,161	67,051	1	' (238,519		1	94,131	1	148,250	* 1	27,125	100,438	745,102	1 (15,055	48,876	•	, 0	1,850	20.		1	,	ı	1	' 6	12,889	1,300,320	1 506 520	247,859	1 258 661	00,003,1		759,327	49,004	535 553	500,000	, 1		•		12,791		25,575	
	•		69																														U	•	e	•		€9										69	
[0]	ADJ #3 Cash Working Capital	Ref. Sch JMM-7	1 1		•	•	•	r	r ,	•	,	•	•	•	1	•	•	1	1	4	ı	•	•			1	•	•	•	•	1	1		1	1			•		(34 765)	(097,100)		•			12,791	ı	47,556	
		1 1	69																														69	•	er.	•		↔										€9	
Ō	A <u>DJ #2</u> Accumulated Depreciation Expense	Ref. Sch JMM-6		,	ŧ	•	•	ı		•	1	•	i		1	•	1	ı	•		•	ı	•	•			•	ı	•	•	ı	•		16,625	(16 625)	(22,22)		•		• •			1			•		(16,625)	
	Accumi		€9-																														S	•	e.	+		€>										↔	
	ent ant												20	į	25						í	(2)									C	3	50	:	50	." }												350	"
[8]	ADJ #1 Plant Pro-Forma Adjustment And Reclassification of Plant	Ref: Sch JMM-5		•	•	•	•	1		•	•	•	148,250	1 .	27,125	•	•	•	ı		' 00	(670,821)	•	•	•	•	•	•	•	•	- 77 350		47.350	'	- 47 350			•	1				. 1			•	,	47,3	
	Plant		€9																														65	,	e.	•		↔										69	
<u>K</u>	COMPANY	AS FILE	\$ 264	3,161	67,051	•	1 1	238,519			94,131	,	•	•	•	100,438	745,102		15,055	48,8/6	1 000	128,025	1,850	200.'		,	•		•	, 6	12,889	0 1 '804'.	\$ 1459 170	231,234	\$ 1227 Q36			\$ 759,327	710 323	570 318	0.0,070			•		ŧ	1	\$ (52,706)	
ACCT	-	DESCRIPTION	301.0 Organization Cost						300 0 Supply Majos			320.0 Water Treatment Equipment										339.0	340.0		342.0	343.0	344.0	345.0	346.0	347.0	348.0 Other Tangible Plant	_	Total DIa		Not Distriction		-	O	Less: Accumulated Amortization	7			Deferred income Taxes		ADD:		Deffered Regulatory Assets	Original Cost Rate Base	
Ц 2 -	N N		~ ℃	1 ო	4	2	9	۷ (0 0	, C	7 -	12	13	4	4)	16	17	20	9	50	5 5	2 2	3 2	4 °C	2 %	27	28	29	30	33	32	3 5	35	38	37	9 6	4	4	4 5	3 4	1 1	45	5 t	4 4	4 4	20	5. 5.	53	

RATE BASE ADJUSTMENT NO. 1 - PLANT PRO-FORMA AND RECLASSIFICATION OF PLANT

			[A]		[B]		[C]
LINE NO.	ACCT NO.	DESCRIPTION	 OMPANY ROPOSED	ADJ	STAFF USTMENTS	-	STAFF MMENDED
1	339	Other Plant and Miscellaneous Equipment	\$ 128,025	\$	(128,025)	\$	_
2	320.1	Water Treatment Plant	_		148,250		148,250
3	320.3	Water Treatment Equipment	-		27,125		27,125
4		· ·	\$ 128,025	\$	47,350		175,375

REFERENCES:

Column [A]: Company Filing Column [B]: Testimony JMM

Column [C]: Column [A] + Column [B]

RATE BASE ADJUSTMENT NO. 2 - ACCUMULATED DEPRECIATION

	[A]	[B]	[C]
LINE NO. DESCRIPTION	COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1 Accumulated Deprecation	\$ 231,234	\$ 16,625	\$ 247,859

References:

Column [A]: Company Application Column [B]: Testimony JMM

Column [C]: Column [A] + Column [B]

RATE BASE ADJUSTMENT NO. 3 - ADJUSTMENTS TO ADVANCES IN AID OF CONSTRUCTION AND CASH WORKING CAPITAL

		[A]	 [B]	 [C]
LINE NO.	DESCRIPTION	COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Cash Working Capital	\$ -	\$ 12,791	\$ 12,791
2				
3	Advances in aid of construction	\$ 570,318	\$ (34,765)	\$ 535,553
	Staff's Calculation of Cash Working Capital 1/24th Purchased Power 1/8th Operation & Maintenance Expense Total Cash Working Capital	\$ 491 12,299 12,791		

References:
Column [A]: Company Application
Column [B]: Testimony JMM
Column [C]: Column [A] + Column [B]

OPERATING INCOME STATEMENT - ADJUSTED TEST YEAR AND STAFF RECOMMENDED

		C	[A] OMPANY		[B]		[C] STAFF		[D]		[E]		[F]		[G]
			JUSTED	s	TAFF		ST YEAR		STAFF			PR	OPOSED	PF	RO FORMA
LINE			ST YEAR		T YEAR		AS	PR	OPOSED		STAFF		LOAN		WITH
NO.	DESCRIPTION	Α	S FILED	ADJU	STMENTS	AD	JUSTED	CH	IANGES	RECO	MMENDED	SUR	CHARGE	PROF	POSED LOAN
1	REVENUES:														
2	Metered Water Sales	\$	133,060	\$	-	\$	133,060	\$	25,373	\$	158,433	\$	11,870	\$	170,304
3	Forfeited Discounts		-		-		-		-		-				-
4	Other Water Revenues		7,828		-		7,828		-		7,828				7,828
5	Intentionally Left Blank														-
6	Total Operating Revenues	\$	140,888	\$	-	\$	140,888	\$	25,373	\$	166,261	\$	11,870	\$	178,132
7															
8	OPERATING EXPENSES:														
9	Salaries and Wages	\$	50,769	\$	-	\$	50,769	\$	-	\$	50,769			\$	50,769
10	Salaries and Wages - Officers and Stockholders		-		-		-		-		-				•
11	Employee Pensions and Benefits		-		-		-		-		-				-
12	Purchased Power		11,788		-		11,788		-		11,788				11,788
13	Chemicals		-		-		-		-		-				-
14	Repairs and Maintenance		8,139		-		8,139		-		8,139				8,139
15	Office Supplies and Expenses		2,956		-		2,956		-		2,956				2,956
16	Outside Services		7,363		4,200		11,563		-		11,563				11,563
17	Water Testing		9,049		(7,239)		1,810		-		1,810				1,810
18	Outside Services - Other		-		-		-		-		-				-
19	Rental of Building/Real Property		6,000		-		6,000		-		6,000				6,000
20	Transportation Expenses		-		-		-		-		-				-
21	Insurance		7,374		-		7,374		-		7,374				7,374
22	Rate Case Expense		-		-		-		-		-				-
23	Bad Debt Expense		•		-		-		-		-				-
24	Miscellaneous Expense		10,828		(1,044)		9,784		-		9,784				9,784
25	Depreciation Expense		53,318		(18,771)		34,547		-		34,547				34,547
26	Amortization of CIAC		-		-		-		-		-				-
27	Taxes Other than Income		5,558		-		5,558		-		5,558				5,558
28	Property Taxes		5,724		(2,210)		3,514		317		3,831		148		3,979
29	Income Taxes		-		(2,702)		(2,702)		5,243		2,541		414		2,954
30	Deferred Income Taxes		-		-		-		-		-				•
31	Intentionally Left Blank		-		-		-		-		-		-		-
32	Intentionally Left Blank		-		-		-		-		-		-		•
33	Intentionally Left Blank							-							
34	Total Operating Expenses	\$	178,866	\$	(27,766)	\$	151,100	\$	5,559	\$	156,659	\$	562	\$	157,221
35	Operating Income (Loss)	\$	(37,979)	\$	27,766	\$	(10,212)	\$	19,814	\$	9,602	\$	11,309	\$	20,911

References;
Column (A): Company Schedule C-1
Column (B): Schedule JMM-9
Column (C): Column (A) + Column (B)
Column (C): Schedules JMM-13 and JMM-14
Column (E): Column (C) + Column (D)
Column (F): Schedule JMM-13, JMM-14, AND JMM-16

Appaloosa Water Company Docket Nos. W-03443A-11-0040 and W-03443A-10-0143 Test Year ended December 31, 2010

SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

			₹	[8]	[5]	[0]	Ξ	į	Ħ	[6]
LINE ACCT.	ACCT.	Ľ	2400	Water	Miscellaneous	Depreciation	Property Tax	Incom	Income Tax	STAFF
<u></u>	Š	DESCRIPTION	AS FILED	ADJ #1	ADJ#2	ADJ #3	ADJ #4	AD.	ADJ #5	ADJUSTED
-		REVENUES:	ш	Ref: Sch JMM-10	Ref: Sch JMM-11	Ref: Sch JMM-12	Ref: Sch JMM-13	Ref:	Sch JMM-14	
2	461		\$ 133,060	- ↔	· •>	· •	.	€9	⇔	133,060
က	470		1	1		1		1	1	1
4 1	474	•	7,828	•	•	1				7,828
2		Intentionally Left Blank	-		-	-			1	- 000
9 ^		Total Operating Revenues	\$ 140,888	· •	·	ı ≨9	÷₽	s> □	·	140,888
- ∞		OPERATING EXPENSES:								
6	601	Salaries and Wages	\$ 50,769	. \$	-	•	€9	\$	\$	50,769
10	603	Salaries and Wages - Officers and Stockholders	1	•	1	•			ı	,
F	604	 Employee Pensions and Benefits 	1	•	1	•		1	ı	•
12	615	Purchased Power	11,788	•	•	•			•	11,788
13	618	Chemicals	1	•	ı	•			1	1
4	620	Repairs and Maintenance	8,139	•	ı	•		1	,	8,139
15	621	Office Supplies and Expenses	2,956	1	1			ı	ı	2,956
16	630	Outside Services	7,363	4,200	•	i		1	•	11,563
17	635	i Water Testing	9,049	(7,239)	-	i			•	1,810
18	636	Outside Services - Other	r	•	ī	•		1	•	•
19	641	Rental of Building/Real Property	000'9	•	•	1			•	000'9
20	650) Transportation Expenses	1	•	•	•			•	•
21	657	' Insurance	7,374	•	1	1		1	ı	7,374
22	999		ı	•	1	•		1	•	1
23	920		ı	t	•	•		1	1	•
24	675	_	10,828	•	(1,044)			1	•	9,784
22	403		53,318	1	ı	(18,771)			1	34,547
56	407	7 Amortization of CIAC	ı	•	ŀ	•		f	•	ı
	408	3 Taxes Other than Income	5,558	1	İ	•		1	ļ	5,558
	408.11	11 Property Taxes	5,724	Ī	1	ı	(2,	(2,210)	i	3,514
53	409	Income Taxes	ı	•	1	•		1	(2,702)	(2,702)
30	410) Deferred Income Taxes		1	ı	•		i	í	ı
3		Intentionally Left Blank	•	•	1	•		ı	ı	•
32		Intentionally Left Blank	,	1	1	•		1	i	i
33		Intentionally Left Blank	•	•				,	'	,
34		Total Operating Expenses		\$ (3,039)	(1,044)) \$	\$ ((2,210) \$	(2,702) \$	151,100
35		Operating Income (Loss)	\$ (37,979)	\$ 3,039	1,044	\$ 18,771	\$ 2,	,210 \$	2,702 \$	(10,212)

Surrebuttal Schedule JMM-10

OPERATING INCOME ADJUSTMENT NO. 1 - WATER TESTING EXPENSE

		[A]	[B]		[C]
LINE NO.	DESCRIPTION	MPANY OPOSED	STAFF USTMENTS	REC	STAFF COMMENDED
1	Water Testing Expense	\$ 9,049	\$ (7,239)	\$	1,810
2	Outside Service	7,363	4,200		11,563
3	Total	\$ 16,412	\$ (3,039)	\$	13,373

References:

Column (A), Company Schedule C-1

Column (B): Testimony JMM

Column (C): Column (A) + Column (B)

OPERATING INCOME ADJUSTMENT NO. 2 - MISCELLANEOUS EXPENSE

				[A]		[B]	[C]	
LINE	ACCT		CC	MPANY		STAFF	STAF	F
NO.	NO.	DESCRIPTION	PR	OPOSED	ADJ	USTMENTS	RECOMME	ENDED
1		Miscellaneous Expense	\$	10,828	\$	(1,044)	\$	9,784
		owed items Bound Donation Intertainment			\$	500 544 1,044		

References:

Column (A), Company Schedule C-1

Column (B): Testimony JMM

Column (C): Column (A) + Column (B)

OPERATING INCOME ADJUSTMENT NO. 3 - DEPRECIATION EXPENSE ON TEST YEAR PLANT

				[A]	[B]		[C]	[D]	Γ	E)
			PL	ANT In	NonDepreciable	DI	PRECIABLE		DEPRE	CIATION
LINE	ACCT		SE	RVICE	or Fully Depreciated		PLANT	DEPRECIATION	EXP	ENSE
NO.	NO.	DESCRIPTION	Pe	er Staff	PLANT	(0	ol A - Col B)	RATE	(Col C	x Col D)
1	301	Organization Cost	\$	264	\$ -	\$	264	0.00%	\$	-
2	302	Franchise Cost	\$	2,309	\$ -	\$	2,309	0.00%	\$	-
3	303	Land and Land Rights	\$	3,161	\$ -	\$	3,161	0.00%	\$	-
4	304	Structures and Improvements	\$	67,051	\$ -	\$	67,051	3.33%	\$	2,233
5	305	Collecting and Impounding Res.	\$	-	\$ -	\$	-	2.50%	\$	-
6	306	Lake River and Other Intakes	\$	-	\$ -	\$	-	2.50%	\$	-
7	307	Wells and Springs	\$	238,519	\$ -	\$	238,519	3.33%	\$	7,943
8	308	Infiltration Galleries and Tunnels	\$		\$ -	\$		6.67%	\$	-
9	309	Supply Mains	\$	-	\$ -	\$	-	2.00%	\$	-
10	310	Power Generation Equipment	\$	_	\$ -	\$	-	5.00%	\$	-
11	311	Electric Pumping Equipment	\$	94,131	\$ -	\$	94,131	12.50%	\$	11,766
12	320	Water Treatment Equipment	\$	_	\$ -	\$		3.33%	\$	-
13	320.1	Water Treatment Plant	\$	148,250	\$ -	\$	148,250	3.33%	\$	4,937
14	320.2	Solution Chemical Feeder	\$	_	\$ -	\$		20.00%	\$	_
15	320.3	Media for Arsenic Treatment	\$	27,125	\$ -	\$	27,125	80.00%	\$	21,700
16	330	Distribution Reservoirs & Standpipe	\$	100,438	\$ -	\$	100,438	2.22%	\$	2,230
17	331	Transmission and Distribution Mains	\$	745,102	\$ -	\$	745,102	2.00%	\$	14,902
18	333	Services	\$		\$ -	\$	· <u>-</u>	3.33%	\$	_
19	334	Meters	\$	15,055	\$ -	\$	15,055	8.33%		1,254
20	335	Hydrants	\$	48,876	\$ -	\$	48,876	2.00%	\$	978
21	336	Backflow Prevention Devices	\$	· -	\$ -	\$	· -	6.67%	\$	_
22	339	Other Plant and Miscellaneous Equipment	\$	-	\$ -	\$	-	6.67%	\$	_
23	340	Office Furniture and Fixtures	\$	1,850	\$ -	\$	1,850	6.67%	\$	123
24	340.1	Computer Equipment	\$	1,500	\$ -	\$	1,500	20.00%	\$	300
25	341	Transportation Equipment	\$	_	\$ -	\$	-	20.00%	\$	_
26	342	Stores Equipment	\$	-	\$ -	\$	-	4.00%	\$	-
27	343	Tools and Work Equipment	\$	-	\$ -	\$	-	5.00%	\$	-
28	344	Laboratory Equipment	\$	-	\$ -	\$	-	10.00%	\$	_
29	345	Power Operated Equipment	\$	_	\$ -	\$		5.00%	\$	_
30	346	Communications Equipment	\$	-	\$ -	\$	-	10.00%		-
31	347	Miscellaneous Equipment	\$	-	\$ -	\$	_	10.00%		_
32	348	Other Tangible Plant	\$	12,889	\$ -	\$	12,889	10.00%	•	1,289
33 34			\$ 1		\$ -	<u> </u>	1,506,520		\$	69,654
35		Composite Depreciation Rate (Depr Exp / Depreciable Plant):		4.62%						

34		
35	Composite Depreciation Rate (Depr Exp / Depreciable Plant):	4.62%
36	CIAC:	\$ 759,327
37	Amortization of CIAC (Line 32 x Line 33):	\$ 35,108
38		
39	Depreciation Expense Before Amortization of CIAC:	\$ 69,654
40	Less Amortization of CIAC:	\$ 35,108
41	Test Year Depreciation Expense - Staff:	\$ 34,547
42	Depreciation Expense - Company:	\$ 53,318
43	Staff's Total Adjustment:	\$ (18,771)

References:
Column [A]: Schedule JMM-4
Column [B]: From Column [A]
Column [C]: Column [A] - Column [B]
Column [D]: Engineering Staff Report
Column [E]: Column [C] x Column [D]

OPERATING INCOME ADJUSTMENT NO. 4 - PROPERTY TAX EXPENSE

			[A]		[B]		[C]
LINE			STAFF		STAFF		STAFF
NO.	Property Tax Calculation	AS	ADJUSTED	REC	OMMENDED	With	Surcharge
	Chaff Adjusted Took Voor Deversor	•	440.000	•	140.000	æ	140 000
7	Staff Adjusted Test Year Revenues	\$	140,888	\$	140,888	\$	140,888
2	Weight Factor		2		2		2
3	Subtotal (Line 1 * Line 2)		281,776	\$	281,776	\$	281,776
4	Staff Recommended Revenue, Per Schedule JMM-1		140,888	\$	166,261	\$	178,132
5	Subtotal (Line 4 + Line 5)		422,664		448,037		459,908
6	Number of Years		3		3		3
7	Three Year Average (Line 5 / Line 6)		140,888	\$	149,346	\$	153,303
8	Department of Revenue Mutilplier		2		2		2
9	Revenue Base Value (Line 7 * Line 8)		281,776	\$	298,692	\$	306,605
10	Plus: 10% of CWIP -		-		-		-
11	Less: Net Book Value of Licensed Vehicles		94,101	\$	94,101	\$	94,101
12	Full Cash Value (Line 9 + Line 10 - Line 11)		187,675	\$	204,591	\$	212,504
13	Assessment Ratio		20.5%		20.5%		20.5%
14	Assessment Value (Line 12 * Line 13)		38,473	\$	41,941	\$	43,563
15	Composite Property Tax Rate (Per Company Schedule)		9.1336%		9.1336%		9.1336%
16	,			\$	-		
17	Staff Test Year Adjusted Property Tax (Line 14 * Line 15)	\$	3,514	•			
18	Company Proposed Property Tax		5,724				
19							
20	Staff Test Year Adjustment (Line 17-Line 18)	\$	(2,210)				
21	Property Tax - Staff Recommended Revenue (Line 14 * Line 15)			\$	3,831	\$	3,979
22	Staff Test Year Adjusted Property Tax Expense (Line 17)			\$	3,514	\$	3,831
23	Increase in Property Tax Expense Due to Increase in Revenue Requirement			S	317	\$	148
24	more and the responsible and the more and the responsible and the responsibility and th						
25	Increase to Property Tax Expense			\$	317		
26	Increase in Revenue Requirement			Ψ	25,373		
27							
21	Increase to Property Tax per Dollar Increase in Revenue (Line19/Line 20)				1.2483%		

OPERATING INCOME ADJUSTMENT NO. 5 - TEST YEAR INCOME TAXES

LINE		COMPANY	STAFF	STAFF
NO.	DESCRIPTION	PROPOSED	ADJUSTMENTS	RECOMMENDED
1	Income Tax Expense	\$ -	\$ (2,702)	\$ (2,702)

References:
Column (A), Company Schedule C-1
Column (B): Column [C] - Column [A]
Column (C): Schedule JMM-2

CASH FLOW ANALYSIS

Revene - Base Rates \$ 166,261 \$ 166,261 \$ 11,870 \$ 178,132 \$ 166,261 \$ 11,870 \$ 178,132 \$ 166,261 \$ 11,870 \$ 178,132 \$ 166,261 \$ 178,132	Line <u>No.</u> 1	Cash Inflows		ecommended roposed Loan	With P	ro Forma roposed Loan Surcharge
Revenue - Surcharge for Principle, Interest and Taxes \$ 11,870			¢	166 261	\$	166 261
Cash Outflows \$ 166,261 \$ 178,132 Cash Outflows \$ 50,769 \$ 50,769 Salaries and Wages - Officers and Stockholders \$ - \$ - Employee Pensions and Benefits \$ - \$ - Purchased Power \$ 11,788 \$ 11,788 Chemicals \$ - \$ - 10 Repairs and Maintenance \$ 8,139 \$ 8,139 11 Office Supplies and Expenses \$ 2,956 \$ 2,956 12 Outside Services \$ 11,563 \$ 11,563 13 Water Testing \$ 1,810 \$ 1,810 14 Outside Services - Other \$ - \$ - 15 Rental of Building/Real Property \$ 6,000 \$ 6,000 16 Transportation Expenses \$ - \$ - 17 Insurance \$ 7,374 \$ 7,374 18 Rate Case Expense \$ - \$ - 19 Bad Debt Expense \$ - \$ - 20 Miscellaneous Expense \$ 9,784 \$ 9,784 21 Depreciation Expense \$ 9,784 \$ 9,784 22 Depreciation Of CIAC \$ - \$ - <			Ψ	100,201		•
Cash Outflows 5 Salaries and Wages \$ 50,769 \$ 50,769 6 Salaries and Wages - Officers and Stockholders \$ - \$ - 7 Employee Pensions and Benefits \$ - \$ - 8 Purchased Power \$ 11,788 \$ 11,788 9 Chemicals \$ 11,788 \$ 11,788 9 Chemicals \$ 2,956 \$ 2,956 10 Repairs and Maintenance \$ 8,139 \$ 8,139 10 Office Supplies and Expenses \$ 2,956 \$ 2,956 12 Outside Services \$ 11,563 \$ 11,563 13 Water Testing \$ 1,810 \$ 1,810 14 Outside Services - Other \$ - \$ - 15 Rental of Building/Real Property \$ 6,000 \$ 6,000 16 Transportation Expenses \$ - \$ - 17 Insurance \$ 7,374 \$ 7,374 18 Rate Case Expense \$ 7,374 \$ 7,374 19 Bud bet Expense \$ 9,784			<u> </u>	166 261		
5 Salaries and Wages \$ 50,769 \$ 50,769 6 Salaries and Wages - Officers and Stockholders \$ - \$ - 7 Employee Pensions and Benefits \$ - \$ - 8 Purchased Power \$ 11,788 \$ 11,788 9 Chemicals \$ 11,788 \$ 11,788 9 Chemicals \$ 1,39 \$ 13,39 9 Salaries and Maintenance \$ 8,139 \$ 139 10 Repairs and Maintenance \$ 8,139 \$ 139 11 Office Supplies and Expenses \$ 2,956 \$ 2,956 12 Outside Services \$ 11,563 \$ 11,563 12 Outside Services - Other \$ 1,810 \$ 1,810 14 Outside Services - Other \$ 6,000 \$ 6,000 15 Rental of Building/Real Property \$ 6,000 \$ 6,000 16 Transportation Expenses \$ 7,374 \$ 7,374 17 Insurance \$ 7,374 \$ 7,374 18 Rate Case Expense \$ 9,784 \$ 9,784 <	4	Total Revenue	Ψ	100,201	Ψ	170,102
6 Salaries and Wages - Officers and Stockholders \$ - \$ - 7 Employee Pensions and Benefits \$ 11,788 \$ 11,788 8 Purchased Power \$ 11,788 \$ 11,788 9 Chemicals \$ - \$ - 10 Repairs and Maintenance \$ 8,139 \$ 8,139 10 Office Supplies and Expenses \$ 2,956 \$ 2,956 12 Outside Services \$ 11,563 \$ 11,563 13 Water Testing \$ 1,810 \$ 1,810 14 Outside Services - Other \$ - \$ - 15 Rental of Building/Real Property \$ 6,000 \$ 6,000 16 Transportation Expenses \$ - \$ - 17 Insurance \$ 7,374 \$ 7,374 18 Rate Case Expense \$ - \$ - 19 Bad Debt Expense \$ - \$ - 20 Miscellaneous Expense \$ 9,784 \$ 9,784 21 Depreciation Expense \$ 9,784 \$ 9,784 22 Property Taxes \$ 34,547 \$ 34,547 23 Taxes Other than Income \$ 5,558 \$ 5,558 24 Property Taxes \$ 1,500 \$ 1,500<		Cash Outflows				
6 Salaries and Wages - Officers and Stockholders \$ - \$ - 7 Employee Pensions and Benefits \$ 11,788 \$ 11,788 8 Purchased Power \$ 11,788 \$ 11,788 9 Chemicals \$ - \$ - 10 Repairs and Maintenance \$ 8,139 \$ 8,139 11 Coffice Supplies and Expenses \$ 2,956 \$ 2,956 12 Outside Services \$ 11,563 \$ 11,563 13 Water Testing \$ 1,810 \$ 1,810 14 Outside Services - Other \$ - \$ - 15 Rental of Building/Real Property \$ 6,000 \$ 6,000 16 Transportation Expenses \$ - \$ - 17 Insurance \$ 7,374 \$ 7,374 18 Rate Case Expense \$ - \$ - 19 Bad Debt Expense \$ - \$ - 20 Miscellaneous Expense \$ 9,784 \$ 9,784 21 Depreciation Expense \$ 9,784 \$ 9,784 22 Depreciation Expense \$ 34,547 \$ 34,547 23 Taxes Other than Income \$ 5,558 \$ 5,558 24 Property Taxes \$ 1,500 \$	5	Salaries and Wages	\$	50.769	\$	50,769
7 Employee Pensions and Benefits \$ - \$ - 8 Purchased Power \$ 11,788 \$ 11,788 9 Chemicals \$ - \$ - 10 Repairs and Maintenance \$ 8,139 \$ 8,139 11 Office Supplies and Expenses \$ 2,956 \$ 2,956 12 Outside Services \$ 11,563 \$ 11,563 13 Water Testing \$ 1,810 \$ 1,810 14 Outside Services - Other \$ - \$ - \$ - 15 Rental of Building/Real Property \$ 6,000 \$ 6,000 16 Transportation Expenses \$ - \$ - \$ - 17 Insurance \$ 7,374 \$ 7,374 18 Rate Case Expense \$ 7,374 \$ 7,374 18 Rate Case Expense \$ 9,784 \$ 9,784 19 Bad Debt Expense \$ 9,784 \$ 9,784 20 Miscellaneous Expense \$ 9,784 \$ 9,784 21 Depreciation Expense \$ 34,547 \$ 34,547 22 Amortization of CIAC			\$	-		-
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9 Chemicals \$ - \$ - 10 Repairs and Maintenance \$ 8,139 \$ 8,139 11 Office Supplies and Expenses \$ 2,956 \$ 2,956 12 Outside Services \$ 11,563 \$ 11,563 13 Water Testing \$ 1,810 \$ 1,810 14 Outside Services - Other \$ - \$ - 15 Rental of Building/Real Property \$ 6,000 \$ 6,000 16 Transportation Expenses \$ - \$ - 17 Insurance \$ 7,374 \$ 7,374 18 Rate Case Expense \$ - \$ - 19 Bad Debt Expense \$ - \$ - 20 Miscellaneous Expense \$ 9,784 \$ 9,784 21 Depreciation Expense \$ 34,547 \$ 34,547 22 Amortization of CIAC \$ - \$ - 23 Taxes Other than Income \$ 5,558 \$ 5,558 24 Property Taxes \$ 3,831 \$ 3,979 25 Income Taxes \$ 2,541 \$ 2,954 26 Deferred Income Taxes \$ 2,541 \$ 2,954 27 Total Expenses \$ 34,547 \$ 34,547 2		· · ·	\$	11 788	\$	11 788
Repairs and Maintenance \$ 8,139 \$ 8,139 Office Supplies and Expenses \$ 2,956 \$ 2,956 Outside Services \$ 11,563 \$ 11,563 Water Testing \$ 1,810 \$ 1,810 Outside Services - Other \$ - \$ - \$ - \$ - \$ - \$ - \$ Rental of Building/Real Property \$ 6,000 \$ 6,000 Transportation Expenses \$ - \$ - \$ - \$ - \$ Insurance \$ 7,374 \$ 7,374 Rate Case Expense \$ - \$ - \$ - \$ - \$ Bad Debt Expense \$ - \$ - \$ - \$ - \$ Miscellaneous Expense \$ 9,784 \$ 9,784 Depreciation Expense \$ 34,547 \$ 34,547 Amortization of CIAC \$ - \$ - \$ - \$ Transportation Expense \$ 3,831 \$ 3,979 Income Taxes \$ 1,558 \$ 5,558 Property Taxes \$ 3,831 \$ 3,979 Income Taxes \$ 2,541 \$ 2,954 Deferred Income Taxes \$ 156,659 \$ 157,221 28 Operating Income \$ 9,602 \$ 20,911 29 Plus Depreciation Expense \$ 34,547 \$ 34,547 30 Less: WIFA Loan Payment Interest \$ 7,235 \$ 13,022 Less: WIFA Loan Payment Interest \$ 7,235 \$ 13,022 Cash Flow from Operations before WIFA Reserve \$ 30,013 \$ 30,013 30 WIFA Reserve (20% of Principal and Interest) \$ 2,827 \$ 5,089 WIFA Reserve (20% of Principal and Interest) \$ 2,827 \$ 5,089			\$	11,700	\$	- 1,,, 00
11 Office Supplies and Expenses \$ 2,956 \$ 2,956 12 Outside Services \$ 11,563 \$ 11,563 13 Water Testing \$ 1,810 \$ 1,810 14 Outside Services - Other \$ - \$ - 15 Rental of Building/Real Property \$ 6,000 \$ 6,000 16 Transportation Expenses \$ - \$ - 17 Insurance \$ 7,374 \$ 7,374 18 Rate Case Expense \$ - \$ - 19 Bad Debt Expense \$ - \$ - 20 Miscellaneous Expense \$ 9,784 \$ 9,784 21 Depreciation Expense \$ 34,547 \$ 34,547 21 Depreciation Expense \$ 34,547 \$ 34,547 22 Amortization of CIAC \$ - \$ - 23 Taxes Other than Income \$ 5,558 \$ 5,558 24 Property Taxes \$ 3,831 \$ 3,979 25 Income Taxes \$ 2,541 \$ 2,954 26 Deferred Income Taxes \$ 2,541 \$ 2,954 27 Total Expenses			Φ.	g 13Q		8 130
12 Outside Services \$ 11,563 \$ 11,563 13 Water Testing \$ 1,810 \$ 1,810 14 Outside Services - Other \$ - \$ - 15 Rental of Building/Real Property \$ 6,000 \$ 6,000 16 Transportation Expenses \$ - \$ - 17 Insurance \$ 7,374 \$ 7,374 18 Rate Case Expense \$ - \$ - 19 Bad Debt Expense \$ - \$ - 20 Miscellaneous Expense \$ 9,784 \$ 9,784 21 Depreciation Expense \$ 34,547 \$ 34,547 21 Depreciation Expense \$ 3,831 \$ 3,979 23 Taxes Other than Income \$ 5,558 \$ 5,558 24 Property Taxes \$ 3,831 \$ 3,979 25 Income Taxes \$ 2,541 \$ 2,954 26 Deferred Income Taxes \$ - \$ - 27 Total Expenses \$ 156,659 \$ 157,221 28 Operating Income \$ 9,602 \$ 20,911 29 Plus Depreciation Expense		•	Ψ	,	¢.	
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20 Miscellaneous Expense \$ 9,784 \$ 9,784 21 Depreciation Expense \$ 34,547 \$ 34,547 22 Amortization of CIAC \$ - \$ - 23 Taxes Other than Income \$ 5,558 \$ 5,558 24 Property Taxes \$ 3,831 \$ 3,979 25 Income Taxes \$ 2,541 \$ 2,954 26 Deferred Income Taxes \$ - \$ - 27 Total Expenses \$ 156,659 \$ 157,221 28 Operating Income \$ 9,602 \$ 20,911 29 Plus Depreciation Expense \$ 34,547 \$ 34,547 30 Less: WIFA Loan Payment Interest \$ 7,235 \$ 13,022 31 Less: WIFA Loan Payment Principle \$ 6,901 \$ 12,422 32 Cash Flow from Operations before WIFA Reserve \$ 30,013 \$ 30,013 33 Provision for AIAC refund \$ 7,000 \$ 7,000 34 WIFA Reserve (20% of Principal and Interest) \$ 2,827 \$ 5,089	18		\$	-	\$	-
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22 Amortization of CIAC \$ - \$ - 23 Taxes Other than Income \$ 5,558 \$ 5,558 24 Property Taxes \$ 3,831 \$ 3,979 25 Income Taxes \$ 2,541 \$ 2,954 26 Deferred Income Taxes \$ - \$ - 27 Total Expenses \$ 156,659 \$ 157,221 28 Operating Income \$ 9,602 \$ 20,911 29 Plus Depreciation Expense \$ 34,547 \$ 34,547 30 Less: WIFA Loan Payment Interest \$ 7,235 \$ 13,022 31 Less: WIFA Loan Payment Principle \$ 6,901 \$ 12,422 32 Cash Flow from Operations before WIFA Reserve \$ 30,013 \$ 30,013 33 Provision for AIAC refund \$ 7,000 \$ 7,000 34 WIFA Reserve (20% of Principal and Interest) \$ 2,827 \$ 5,089	20	Miscellaneous Expense	\$	9,784	\$	9,784
22 Amortization of CIAC \$ - \$ - 23 Taxes Other than Income \$ 5,558 \$ 5,558 24 Property Taxes \$ 3,831 \$ 3,979 25 Income Taxes \$ 2,541 \$ 2,954 26 Deferred Income Taxes \$ - \$ - 27 Total Expenses \$ 156,659 \$ 157,221 28 Operating Income \$ 9,602 \$ 20,911 29 Plus Depreciation Expense \$ 34,547 \$ 34,547 30 Less: WIFA Loan Payment Interest \$ 7,235 \$ 13,022 31 Less: WIFA Loan Payment Principle \$ 6,901 \$ 12,422 32 Cash Flow from Operations before WIFA Reserve \$ 30,013 \$ 30,013 33 Provision for AIAC refund \$ 7,000 \$ 7,000 34 WIFA Reserve (20% of Principal and Interest) \$ 2,827 \$ 5,089	21	Depreciation Expense	\$	34,547	\$	34,547
23 Taxes Other than Income \$ 5,558 \$ 5,558 24 Property Taxes \$ 3,831 \$ 3,979 25 Income Taxes \$ 2,541 \$ 2,954 26 Deferred Income Taxes \$ - \$ - 27 Total Expenses \$ 156,659 \$ 157,221 28 Operating Income \$ 9,602 \$ 20,911 29 Plus Depreciation Expense \$ 34,547 \$ 34,547 30 Less: WIFA Loan Payment Interest \$ 7,235 \$ 13,022 31 Less: WIFA Loan Payment Principle \$ 6,901 \$ 12,422 32 Cash Flow from Operations before WIFA Reserve \$ 30,013 \$ 30,013 33 Provision for AIAC refund \$ 7,000 \$ 7,000 34 WIFA Reserve (20% of Principal and Interest) \$ 2,827 \$ 5,089	22	Amortization of CIAC		-	\$	-
24 Property Taxes \$ 3,831 \$ 3,979 25 Income Taxes \$ 2,541 \$ 2,954 26 Deferred Income Taxes \$ - \$ - 27 Total Expenses \$ 156,659 \$ 157,221 28 Operating Income \$ 9,602 \$ 20,911 29 Plus Depreciation Expense \$ 34,547 \$ 34,547 30 Less: WIFA Loan Payment Interest \$ 7,235 \$ 13,022 31 Less: WIFA Loan Payment Principle \$ 6,901 \$ 12,422 32 Cash Flow from Operations before WIFA Reserve \$ 30,013 \$ 30,013 33 Provision for AIAC refund \$ 7,000 \$ 7,000 34 WIFA Reserve (20% of Principal and Interest) \$ 2,827 \$ 5,089	23	Taxes Other than Income		5,558	\$	5,558
25 Income Taxes \$ 2,541 \$ 2,954 26 Deferred Income Taxes \$ - \$ - 27 Total Expenses \$ 156,659 \$ 157,221 28 Operating Income \$ 9,602 \$ 20,911 29 Plus Depreciation Expense \$ 34,547 \$ 34,547 30 Less: WIFA Loan Payment Interest \$ 7,235 \$ 13,022 31 Less: WIFA Loan Payment Principle \$ 6,901 \$ 12,422 32 Cash Flow from Operations before WIFA Reserve \$ 30,013 \$ 30,013 33 Provision for AIAC refund \$ 7,000 \$ 7,000 34 WIFA Reserve (20% of Principal and Interest) \$ 2,827 \$ 5,089			\$		\$	3,979
26 Deferred Income Taxes \$ - \$ - 27 Total Expenses \$ 156,659 \$ 157,221 28 Operating Income \$ 9,602 \$ 20,911 29 Plus Depreciation Expense \$ 34,547 \$ 34,547 30 Less: WIFA Loan Payment Interest \$ 7,235 \$ 13,022 31 Less: WIFA Loan Payment Principle \$ 6,901 \$ 12,422 32 Cash Flow from Operations before WIFA Reserve \$ 30,013 \$ 30,013 33 Provision for AIAC refund \$ 7,000 \$ 7,000 34 WIFA Reserve (20% of Principal and Interest) \$ 2,827 \$ 5,089		· ·	\$			
27 Total Expenses \$ 156,659 \$ 157,221 28 Operating Income \$ 9,602 \$ 20,911 29 Plus Depreciation Expense \$ 34,547 \$ 34,547 30 Less: WIFA Loan Payment Interest \$ 7,235 \$ 13,022 31 Less: WIFA Loan Payment Principle \$ 6,901 \$ 12,422 32 Cash Flow from Operations before WIFA Reserve \$ 30,013 \$ 30,013 33 Provision for AIAC refund \$ 7,000 \$ 7,000 34 WIFA Reserve (20% of Principal and Interest) \$ 2,827 \$ 5,089				_,0		-
28 Operating Income \$ 9,602 \$ 20,911 29 Plus Depreciation Expense \$ 34,547 \$ 34,547 30 Less: WIFA Loan Payment Interest \$ 7,235 \$ 13,022 31 Less: WIFA Loan Payment Principle \$ 6,901 \$ 12,422 32 Cash Flow from Operations before WIFA Reserve \$ 30,013 \$ 30,013 33 Provision for AIAC refund \$ 7,000 \$ 7,000 34 WIFA Reserve (20% of Principal and Interest) \$ 2,827 \$ 5,089				156 659		157.221
29 Plus Depreciation Expense \$ 34,547 \$ 34,547 30 Less: WIFA Loan Payment Interest \$ 7,235 \$ 13,022 31 Less: WIFA Loan Payment Principle \$ 6,901 \$ 12,422 32 Cash Flow from Operations before WIFA Reserve \$ 30,013 \$ 30,013 33 Provision for AIAC refund \$ 7,000 \$ 7,000 34 WIFA Reserve (20% of Principal and Interest) \$ 2,827 \$ 5,089	~.	Total Experiess	•	100,000	•	,
30 Less: WIFA Loan Payment Interest \$ 7,235 \$ 13,022 31 Less: WIFA Loan Payment Principle \$ 6,901 \$ 12,422 32 Cash Flow from Operations before WIFA Reserve \$ 30,013 \$ 30,013 33 Provision for AIAC refund \$ 7,000 \$ 7,000 34 WIFA Reserve (20% of Principal and Interest) \$ 2,827 \$ 5,089	28	Operating Income	\$	9,602	\$	20,911
30 Less: WIFA Loan Payment Interest \$ 7,235 \$ 13,022 31 Less: WIFA Loan Payment Principle \$ 6,901 \$ 12,422 32 Cash Flow from Operations before WIFA Reserve \$ 30,013 \$ 30,013 33 Provision for AIAC refund \$ 7,000 \$ 7,000 34 WIFA Reserve (20% of Principal and Interest) \$ 2,827 \$ 5,089	29	Plus Depreciation Expense	\$	34,547	\$	34,547
31 Less: WIFA Loan Payment Principle \$ 6,901 \$ 12,422 32 Cash Flow from Operations before WIFA Reserve \$ 30,013 \$ 30,013 33 Provision for AIAC refund \$ 7,000 \$ 7,000 34 WIFA Reserve (20% of Principal and Interest) \$ 2,827 \$ 5,089	30			7,235		13,022
32 Cash Flow from Operations before WIFA Reserve \$ 30,013 \$ 30,013 33 Provision for AIAC refund \$ 7,000 \$ 7,000 34 WIFA Reserve (20% of Principal and Interest) \$ 2,827 \$ 5,089						•
33 Provision for AIAC refund \$ 7,000 \$ 7,000 34 WIFA Reserve (20% of Principal and Interest) \$ 2,827 \$ 5,089			\$			
34 WIFA Reserve (20% of Principal and Interest) \$ 2,827 \$ 5,089	-	Table For Home Operations Delete The Princetons	•	00,010	•	55,515
	33	Provision for AIAC refund	\$	7,000	\$	7,000
	34	WIFA Reserve (20% of Principal and Interest)	\$	2,827	\$	5,089
					\$	

FINANCIAL ANALYSIS

			[A] ¹	[B] ²
			ecommended roposed Loan	o Forma oposed Loan
1	Operating Income	\$	9,602	\$ 20,911
2	Depreciation & Amort.	\$	34,547	\$ 34,547
3 4	Income Tax Expense	\$	2,541	\$ 2,954
5	Interest Expense	\$	7,235	\$ 13,022
6	Repayment of Principal	\$	6,901	\$ 12,422
7	,	•	,	,
8				
9	DSC			
10	[1+2+3] + [5+6]		3.30	2.30

¹Column [A] is based on Staff's recommended income and includes the effects of the existing \$200,000 WIFA loan.

²Column [B] is Column [A] modified to reflect issuance of a \$160,000, 20-year amortizing loan at 3.675 percent per annum and \$11,870 of surcharge revenue.

CALCULATION OF INFRASTRUCTURE SURCHARGE AMOUNT

Surcharge Inclusive of AWWA Meter Multiplier

Loan Amount		\$	160,000
Principal & Interest - 20-year W Incremental Income and Prope Total Yearly Surcharge	\$ \$ \$	11,309 562 11,870	
Total Equivalent Annual Bills			4,800
5/8"x 3/4" Meter Surcharge Amount	(\$11,870 / 4,800)	\$	2.47
3/4" Meter Surcharge Amount	(\$11,870 / 4,800) * 1.5	\$	3.71
1" Meter Surcharge Amount	(\$11,870 / 4,800) * 2.5	\$	6.18
1 1/2" Meter Surcharge Amount	(\$11,870 / 4,800) * 5	\$	12.36
2" Meter Surcharge Amount	(\$11,870 / 4,800) * 8	\$	19.78
3." Meter Surcharge Amount	(\$11,870 / 4,800) * 16	\$	39.57
4" Meter Surcharge Amount	(\$11,870 / 4,800) * 25	\$	61.82
6" Meter Surcharge Amount	(\$11,870 / 4,800) * 50	\$	123.65

Meter Size	Number of Customers ¹	Meter Multiplier	Equivalent Customers	Equivalent No. of Bills	Monthly Surcharge	Yearly Surcharge	Total Amount
5/8" x 3/4" Meter	-	1	-	-	\$ 2.47	\$ 29.68	\$ -
3/4" Meter	185	1.5	278	3,330	3.71	\$ 44.51	\$ 8,235
1" Meter	49	2.5	123	1,470	6.18	\$ 74.19	\$ 3,635
1 1/2" Meter	•	5	-	_	12.36	\$ 148.38	\$ -
2" Meter	-	8	-	-	19.78	\$ 237.41	\$ -
3" Meter	-	16	-	-	39.57	\$ 474.81	\$ _
4" Meter	-	25	-	-	61.82	\$ 741.90	\$ -
6" Meter	-	50	-	-	123.65	\$ 1,483.79	\$ _
TOTAL	234		400	4,800			\$ 11,870

¹ As of Test Year.

Appaloosa Water Company Docket Nos. W-03443A-11-0040 and W-03443A-10-0143 Test Year Ended December 31, 2010

Monthly Usage Charge	Present		Company Proposed			
5/8" x 3/4" Meter	\$	25.00	\$	50.00	\$	25.00
3/4" Meter	Ψ	25.00	•	50.00		25.00
1" Meter		41.67		83.34		41.67
1½" Meter		83.33		166.66		83.33
2" Meter		133.33		266.66		133.33
3" Meter		266.67		533.40		266.67
4" Meter		416.67		833.34		416.67
6" Meter		833.33	1	,666.66		833.33
Gallons included in Minimum		0.00		0.00		0.00
Commodity Charge (Per 1,000 Gallons)						
5/8" x 3/4" Meter and 3/4" Meter (Residential, Industrial & Commercial)						
1 - 3,000 gallons	\$	1.50	\$	3.00		N/A
3,001 - 7,000 gallons		2.00		4.00		N/A
Over 7,000 gallons		2.90		5.80		N/A
First 3,000 gallons		N/A		N/A		1.9500
3,001 to 7,000 gallons		N/A		N/A		3.2500
Over 7,000 gallons		N/A		N/A		4.4500
1" Meter (Residential, Industrial & Commercial)						
1 - 7,000 gallons		2.00		4.00		N/A
Over 7,000 gailons		2.90		5.80		N/A
First 7,000 gallons		N/A		N/A		3.2500
Over 7,000 gallons		N/A		N/A		4.4500
1 1/2" Meter (Residential, Industrial & Commercial)						
1 - 15,000 gallons		2.00		4.00		N/A
Over 15,000 gallons		2.90		5.80		N/A
First 15,000 gallons		N/A		N/A		3.2500
Over 15,000 gallons		N/A		N/A		4,4500
2" Meter (Residential, Industrial & Commercial)						
1 - 24,000 gallons		2.00		4.00		N/A
Over 24,000 gallons		2,90		5.80		N/A
First 24,000 gallons		N/A		N/A		3.2500
Over 24,000 gallons		N/A		N/A		4.4500
3" Meter (Residential, Industrial & Commercial)		0.05		4.00		21/6
1 - 48,000 gallons		2.00		4.00		N/A
Over 48,000 gallons		2.90		5.80		N/A
First 48,000 gallons		N/A		N/A		3.2500
Over 48,000 gallons		N/A		N/A		4.4500

Appaloosa Water Company Docket Nos. W-03443A-11-0040 and W-03443A-10-0143 Test Year Ended December 31, 2010

rest Year Ended December 31, 2010					
4" Meter (Residential, Industrial & Commercial)					
1 - 75,000 gallons	2.00 2.90		N/A N/A		
Over 75,000 gallons	2.90	5.80	N/A		
First 75,000 gallons	N/A	N/A	3.2500		
Over 75,000 gallons	N/A	N/A	4.4500		
Over 75,000 ganoris	1477	1			
6" Meter (Residential, Industrial & Commercial)					
1 - 150,000 gallons	2.00		N/A		
Over 150,000 gallons	2.90	5.80	N/A		
	1/		3,2500		
First 150,000 gallons	N/A N/A		4.4500		
Over 150,000 gallons	N/A	IN/A	4.4500		
Service Charges					
Service Charges					
Establishment	\$ 25.00	\$ 50,00	\$ 25.00		
Establishment (After Hours)	50.00	100.00	N/A		
Reconnection (Delinquent)	30.00		30.00		
Reconnection (Delinquent) after hours	50.00		N/A		
Meter Test (if Correct)	15.00	30.00	15.00		
Deposit		*	*		
Deposit Interest	N/A		*		
Re-Establishment (Within 12 Months)	*	1	**		
NSF Check	20.00		20.00		
Deferred Payment (Per Annum)	1.5%		1.5%		
Meter Re-Read (If Correct)	15.00				
Late Fee (Per Month)	1.5%				
Monthly Service Charge for Fire Sprinkler			1		
After hours service charge	N/A	N/A	50.00		
* Per Commission Rules (R14-2-403.B)					
** Months off system times the monthly minimum (R14-2-403.D)					
*** 2.00 percent of monthly minimum charge for a comparable sized meter connection, but					
no less than \$10.00 per month. The service charge for fire sprinklers is only applicable		1			
for service lines separate and distinct from the primary water service line.					
			Service Line	Meter	Total
Service Line Charges			Charge	Installation	Recommend
5/8 x 3/4-inch Meter	\$ 600.00	\$ 1,200.00	\$ 445.00	\$ 155.00	\$ 600.00
3/4-inch Meter	700.00		445.00	255.00	700.00
1-inch Meter	810.00		495.00	315.00	810.00
11/2-inch Meter	1,075.00		550.00	525.00	1,075.00
2-inch Turbine Meter	1,875.00		830.00	1,045.00	1,875.00
2-inch Compound Meter	2,720.00		830.00	1,890.00	2,720.00
3-inch Turbine Meter	2,715.00		1,045.00	1,670.00	2,715.00
3-inch Compound Meter	3,710.00		1,165.00	2,545.00	3,710.00 4,160.00
4-inch Turbine Meter	4,160.00		1,490.00	2,670.00	
4-inch Compound Meter	5,315.00		1,670.00	3,645.00	5,315.00
6-inch Turbine Meter	7,235.00		2,210.00	5,025.00	7,235.00 9,250.00
6-inch Compound Meter	9,250.00	18,500.00	2,330.00	6,920.00	9,250.00
		1	J		

Typical Bill Analysis General Service 5/8 x 3/4-Inch Meter

Company Proposed	Gallons		roposed Rates	_	ollar crease	Percent Increase
Average Usage	8,353	\$ 41.42 \$	82.85	\$	41.42	100.00%
Median Usage	5,652	34.80	69.61	\$	34.80	100.00%
Staff Recommended		 				
Average Usage	8,353	\$ 41.42 \$	49.87	\$	8.45	20.39%
Median Usage	5,652	34.80	39.47	\$	4.67	13.40%

Present & Proposed Rates (Without Taxes) General Service 5/8 x 3/4-Inch Meter

			Company		Staff	,	
Gallons	1	Present	Proposed	%	Recomme	ended	%
Consumption		Rates	Rates	Increase	Rates	s .	Increase
•	\$	25.00	\$ 50.00	100.00%	\$	25.00	0.00%
1,000		26.50	53.00	100.00%		26.95	1.70%
2,000		28.00	56,00	100.00%		28.90	3.21%
3,000		29.50	59.00	100.00%		30.85	4.58%
4,000		31.50	63.00	100.00%		34.10	8.25%
5,000		33.50	67.00	100.00%		37.35	11.49%
6,000		35.50	71.00	100.00%		40.60	14.37%
7,000		37.50	75.00	100.00%		43.85	16.93%
8,000		40.40	80.80	100.00%		48.30	19.55%
9,000		43.30	86.60	100.00%		52.75	21.82%
10,000		46.20	92.40	100.00%		57.20	23.81%
11,000		49.10	98.20	100.00%		61.65	25.56%
12,000		52.00	104.00	100.00%		66.10	27.12%
13,000		54.90	109.80	100.00%		70.55	28.51%
14,000		57.80	115.60	100.00%		75.00	29.76%
15,000		60.70	121.40	100.00%		79.45	30.89%
16,000		63.60	127.20	100.00%		83.90	31.92%
17,000		66.50	133.00	100.00%		88.35	32.86%
18,000		69.40	138.80	100.00%		92.80	33.72%
19,000		72.30	144.60	100.00%		97.25	34.51%
20,000		75.20	150.40	100.00%		101.70	35.24%
25,000		89.70	179.40	100.00%		123.95	38.18%
30,000		104.20	208.40	100.00%		146.20	40.31%
35,000		118.70	237.40	100.00%		168.45	41.91%
40,000		133.20	266.40	100.00%		190.70	43.17%
45,000		147.70	295.40	100.00%		212.95	44.18%
50,000		162.20	324.40	100.00%		235.20	45.01%
75,000		234.70	469.40	100.00%		346.45	47.61%
100,000		307.20	614.40	100.00%		457.70	48.99%

Typical Bill Analysis with Infrastructure Surcharge General Service 5/8 x 3/4-Inch Meter

Company Proposed	Gallons		roposed Rates	-	Oollar crease	Percent Increase
Average Usage	8,353	\$ 41.42 \$	82.85	\$	41.42	100.00%
Median Usage	5,652	34.80	69.61	\$	34.80	100.00%
Staff Recommended	****	 				
Average Usage	8,353	\$ 41.42 \$	52.34	\$	10.92	26.35%
Median Usage	5,652	34.80	41.94	\$	7.14	20.50%

Present & Proposed Rates (Without Taxes) General Service 5/8 x 3/4-Inch Meter

				Company		Staff	
Gallons	Pi	resent		Proposed	%	Recommended	%
Consumption	F	Rates		Rates	Increase	Rates	Increase
-	\$	25.00		\$ 50.00	100.00%	\$ 27.47	9.88%
1,000		26.50		53.00	100.00%	29.42	11.02%
2,000		28.00		56.00	100.00%	31.37	12.04%
3,000		29.50		59.00	100.00%	33.32	12.95%
4,000		31.50		63.00	100.00%	36.57	16.10%
5,000		33.50		67.00	100.00%	39.82	18.87%
6,000		35.50		71.00	100.00%	43.07	21.32%
7,000		37.50		75.00	100.00%	46.32	23.52%
8,000		40.40		80.80	100.00%	50.77	25.67%
9,000		43.30		86.60	100.00%	55.22	27.53%
10,000		46.20	•	92.40	100.00%	59.67	29.16%
11,000		49.10		98.20	100.00%	64.12	30.59%
12,000		52.00		104.00	100.00%	68.57	31.87%
13,000		54.90		109.80	100.00%	73.02	33.01%
14,000		57.80		115.60	100.00%	77.47	34.03%
15,000		60.70		121.40	100.00%	81.92	34.96%
16,000		63.60		127.20	100.00%	86.37	35.80%
17,000		66.50		133.00	100.00%	90.82	36.57%
18,000		69.40		138.80	100.00%	95.27	37.28%
19,000		72.30		144.60	100.00%	99.72	37.93%
20,000		75.20		150.40	100.00%	104.17	38.52%
25,000		89.70		179.40	100.00%	126.42	40.94%
30,000		104.20		208.40	100.00%	148.67	42.68%
35,000		118.70		237.40	100.00%	170.92	43.99%
40,000		133.20		266.40	100.00%	193.17	45.02%
45,000		147.70		295.40	100.00%	215.42	45.85%
50,000		162.20		324.40	100.00%	237.67	46.53%
75,000		234.70		469.40	100.00%	348.92	48.67%
100,000		307.20		614.40	100.00%	460.17	49.79%

BEFORE THE ARIZONA CORPORATION COMMISSION

GARY PIERCE	•	
Chairman		
BOB STUMP		
Commissioner		
SANDRA D. KENNEDY		
Commissioner		
PAUL NEWMAN		
Commissioner		
BRENDA BURNS		
Commissioner		
IN THE MATTER OF THE APPLICATION OF)	DOCKET NO.	W-03443A-10-0143
APPALOOSA WATER COMPANY FOR		
APPROVAL OF A FINANCING APPLICATION.)		
)	DOCKET NO.	W-03443A-11-0040
IN THE MATTER OF THE APPLICATION OF)	•	
APPALOOSA WATER COMPANY FOR)		
APPROVAL OF A RATE INCREASE.		

SURREBUTTAL

TESTIMONY

OF

JIAN W. LIU

UTILITIES ENGINEER

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

EXECUTIVE SUMMARY APPALOOSA WATER COMPANY DOCKET NOS. W-03443A-10-0143 (FINANCING) & W-03443A-11-0040 (RATES)

Staff recommends that the Company install a 50,000 gallon storage tank. Staff further recommends that the Company file documentation with Docket Control, as a compliance item in this docket, demonstrating that this 50,000 gallon storage tank has been completed within one year of the effective date of the order in this matter.

Surrebuttal Testimony of Jian W. Liu Docket Nos. W-03443A-10-0143 (Financing) & W-03443A-11-0040 (Rates) Page 1

INTRODUCTION

- Q. Please state your name, occupation, and business address.
- A. My name is Jian W. Liu. My job title is Water/Wastewater Engineer. My place of employment is the Arizona Corporation Commission ("Commission"), Utilities Division, 1200 West Washington Street, Phoenix, Arizona 85007.
- Q. Are you the same Jian W. Liu who filed direct testimony in this case?
- A. Yes, I am.

Q. What is the purpose of your Surrebuttal Testimony in this proceeding?

A. The purpose of my Surrebuttal Testimony in this proceeding is to respond, on behalf of Staff, to the Company's rebuttal testimony received on March 27, 2012, regarding the fire flow and peak usage issues. The Company has proposed adding an additional 200,000 gallons of storage capacity.

Based on the water consumption data provided by the Company for the test year ending December 31, 2010, the demand on peak day was 121,083 gallons. The water system has two wells producing a total of 300 gallons per minute ("gpm"), therefore, the total daily source production is 432,000 gallons.

Assuming fire flow requires 120,000 gallons storage, the Company has an existing 65,000 gallons storage tank, and two wells can produce 36,000 gallons in 2 hours. Therefore Staff concludes based on it calculations that the water system only needs an additional 19,000 gallons of storage capacity to meet fire flow requirements.

Surrebuttal Testimony of Jian W. Liu
Docket Nos. W-03443A-10-0143 (Financing) &
W-03443A-11-0040 (Rates)
Page 2

Staff concludes that in order to provide 1,000 gpm for 2 hours and peak day water consumption, 50,000 gallon storage should be added. That is:

Total Demand (2 hours) = 120,000 gallon fire flow + 31,000 gallon peak water consumption = 151,000 gallons

Total Capacity (2 hours) = 65,000 gallon existing + 36,000 gallon producing + 50,000 gallon new storage tank = 151,000 gallons

Staff recommends that the Company install a 50,000 gallon storage tank. Staff further recommends that the Company file documentation with Docket Control, as a compliance item in this docket, demonstrating that this 50,000 gallon storage tank has been completed within one year of the effective date of the order in this matter.

Q. Has Staff estimated the cost for a 50,000 gallons storage tank?

Install one 55,000 Gallons (Nominal) Bolted Steel Storage Tank.

A. Staff received a quote from Superior Tank Company (see attached). For \$56,254.00, it will furnish Materials, Equipment, Labor and Insurance to Fabricate, Coat, Deliver and

Staff's estimated other costs for the proposed 50,000 gallons storage tank (including site

preparation, engineering, and electric, etc...) are \$43,746.00. Therefore, the total cost is

approximately \$100,000.

Q. Have you had the opportunity to review the Company's Rebuttal Testimony regarding the cost estimate for two Generators each with a Propane Tank?

A. Yes.

Surrebuttal Testimony of Jian W. Liu Docket Nos. W-03443A-10-0143 (Financing) & W-03443A-11-0040 (Rates) Page 3

Q. Do you have any comments regarding this portion of Company's testimony?

A. Yes. The Company has requested \$120,000 for two Generators each with a Propane Tank. This request equates to a 100 percent increase in cost compared with the Company's original request in its Financing Application dated April 13, 2010. It estimated \$25,000 for each Generator with Propane Tank (plus 20 percent Contingency, the total price \$30,000). Staff in its direct testimony recommended \$60,000 for two Generators each with Propane Tank or one Generator with Propane Tank for each well site. Staff believes that \$30,000 per generator with propane tank will provide sufficient funding.

Q. Did you attempt to address every issue the Company raised in its rebuttal testimony?

A. No. Staff limited its discussion to the specific issue as outlined above. Staff's lack of response to any issue in this proceeding should not be construed as agreement with the Company's position in its rebuttal testimony; rather where there is no response, Staff relies on its original direct testimony.

Q. Does this conclude your surrebuttal testimony?

A. Yes, it does.



9500 Lucas Ranch Road Rancho Cucamonga, CA 91730 P. 909.912.0580 | F. 909.912.0588 | Toll Free. 800.221.TANK

> DATE: APRIL 3, 2012 QUOTE NO: RC-8902-GM EMAIL: JLIU@AZCC.GOV PHONE: (602) 542-7276

ARIZONA CORP COMMISSION

ATTN: MR. JIAN LIU

RE: BOLTED STEEL STORAGE TANK, CHINO VALLEY, ARIZONA

Superior Tank Co., Inc. is pleased to offer the following quotation for your consideration. To furnish Materials, Equipment, Labor & Insurance to Fabricate, Coat, Deliver and Install the following:

ONE (1) 55,000 Gallons (Nominal), 2 – Rings, 1 In 12 Pitched, Center Pole Supported Steel Cone Roof, Flat Steel Floor, A.W.W.A. D103-09, 100 MPH Windload, 15 PSF Deck Live Load, Factory Powder Coated, throughout with 5 mil average dry film thickness using Dupont "Tank Tan," a Thermal Set Epoxy Powder Coating on Tank Interior and Underside of Floor & 3 mil average dry film thickness using Dupont "Superior Sand," a Thermal Set TGIC Polyester Powder Coating on Tank Exterior, 21'-6 1/2" Diameter x 20' High (Nominal), Bolted Steel Storage Tank, with the following appurtenances:

- 1 24" Diameter Shell Manway
- 1 24" Square Roof Hatch
- 1 20" Screened Roof Vent
- 4 4" 150# Flanged Shell Nozzles
- 1 20' Section of 6" Pipe (Connect to Existing Tank)
- 1 Galvanized Exterior Ladder w/ Backguard
- 2 3.5' High X 5' Wide, Galvanized Handrails
- 1 Superior Model #2000, Liquid Level Indicator
- 1 Set of Calculations & Tank Drawings
- 14 Anchor Bolt Assemblies (Bolts, Nuts, Plates & Stirrups)
- Lot ½" Fiber Expansion Board (Between Tank & Ringwall)
- 1 Vacuum Test, Hydrotest & Disinfection

TOTAL SELLING PRICE: (F.O.B. CHINO VALLEY, ARIZONA).....\$56,254.00

HARDWARE: Standard Galvanized Hardware Exterior, Encapsulated Hardware Interior and EDPM gasket used throughout.

CONDITIONS: Superior Tank assumes site is compacted, level and fully accessible for the delivery of materials with forty-eight foot flatbed trucks. Work will be performed in a continuous manner without interruption. **Prevailing wages are not included**. The above erection costs do not take into consideration any restrictive work hour rules, union labor or any special provisions such as safety schooling, safety clothing or hazardous training seminars that may be required.

EXCLUSIONS: Taxes, Permits, Fees, Insulation, Concrete or Gravel Foundation, Grade Band, Transducers, Special Inspections, Prevailing Wages, Level Switch, Process Piping, Over-



9500 Lucas Ranch Road Rancho Cucamonga, CA 91730

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PAGE 2 RC-8902-GM

Excavation or Recompaction of Existing Soils, Probes, Internal Vortex Breakers, Transmitters, Subgrade, Alarms, Blinds, Flex Coupling, Flap Valves, Freeze Protection, Heater, Heat Tape, Instrumentation, Float Valves or Switches, Downcomers or Supports thereof (Except Where Specified Above), Flex Tends, Valves, Meters, Grading, Gauges, Flap Gates, Water to Hydro-Test or Vacuum Test or Disposal thereof, Bact-T or V.O.C. Tests, Electrical Wiring or Controls thereof, Conduits, Surveying, External or Internal or Below Grade Piping, Fittings, Bonding or Internals or items not specifically mentioned above.

QUOTE VALIDITY: 30 DAYS

TERMS: 30% W/ Purchase Order, 50% W/ Delivery of Materials & Balance Due Upon Substantial Completion

DELIVERY TIME: 6 - 8 Weeks (After Drawing Approval, If Required)

Thank you for the opportunity to be of service. If you have any questions or require additional information, please do not hesitate to contact me at your earliest convenience.

Sincerely,

George Marquez Sales Manager